

FAA STRATEGIC PLAN



1998

STRATEGIC PLAN OVERVIEW

Mission	SAFETY	SECURITY	SYSTEM EFFICIENCY
Goals	By 2007, reduce U.S. aviation fatal accident rates by 80 percent from 1996 levels.	Prevent security incidents in the aviation system.	Provide an aerospace transportation system that meets the needs of users and is efficient in the application of FAA and aerospace resources.
Measures	Fatal Accident Rate ↓ Occupant Risk ↓ Aircraft Accident Rate ↓ Fatalities and Losses ↓ By Type of Accident	Detection ↑ Compliance ↑ Vulnerability ↓	Flexibility ↑ Access ↑ Delays ↓
Focus Areas	Regulatory reform Safety information sharing and analysis Surveillance/inspection Accident prevention	New security baseline Performance and procedures Information security architecture	NAS modernization Free flight Systems integration
Enabling Goals	People: Reform: Environment: Global Leadership:	The Model Work Environment The Framework Our Responsibility Commitment to Worldwide Improvements	

Cross-Cutting Strategies



U.S. Department
of Transportation
**Federal Aviation
Administration**

Office of the Administrator

800 Independence Ave., S.W.
Washington, D.C. 20591

MAY 20 1998

1998 Federal Aviation Administration Strategic Plan

I am pleased to present to you the 1998 Federal Aviation Administration (FAA) Strategic Plan. It leads the aerospace community toward achieving the three goals at the heart of FAA's mission: Safety, Security, and System Efficiency.

This new plan is different from any previous FAA Strategic Plan.

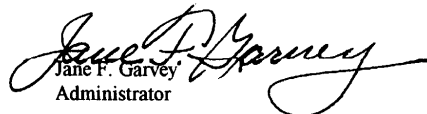
First, it is tightly focused. It serves three mission-based goals. It keys FAA efforts on ten broad areas for focus over the next 5 years. Then it sets out approximately 30 projects that FAA will track corporately and achieve in FY 1998 (new key projects will be selected in subsequent years). The plan focuses not on everything FAA will do, but on key changes it will make working with the aerospace community to achieve the three goals at the center of its mission.

Second, FAA has gone beyond general goals to set outcome-based performance goals with measures and targets. Thus FAA will assess the aerospace community's success in improving safety against the hard standard of achieving an 80-percent reduction in the fatal accident rate between 1996 and 2007. FAA sets similar targets in security and system efficiency.

Third, the FAA Strategic Plan closely supports the new strategic plan of its parent organization, the Department of Transportation (DOT). Just as aerospace is part of a unified national transportation system, so is FAA an integrated part of ONE DOT that works with the transportation community to provide safe, secure transportation that provides mobility, economic growth and trade, and protection of the natural and human environment. FAA's plan describes its support for these DOT goals.

Most importantly, this plan represents my blueprint for guiding FAA and the aerospace community into the future. It sets long-range direction, intermediate "focus area" path markers, and the near-term steps FAA will take to get there. FAA managers will be accountable to me and to each other. FAA as a whole, and I as an individual, will be accountable to the Secretary of Transportation, Congress, and the public to achieve the goals in this plan.

Sincerely,


Jane F. Garvey
Administrator





1998 FAA Strategic Plan



EXECUTIVE SUMMARY

In the fall of 1997, the newly appointed FAA Administrator and her senior management team completed work on the goals that will carry the FAA and aerospace into the next century, from 1998 through 2003 and beyond. The 1998 FAA Strategic Plan lays out these goals, areas for strategic focus, projects to implement them, and outcome measures.

The Strategic Plan is focused around three mission goals: safety, security, and system efficiency. These aerospace goals stem directly from FAA's legal charter and support the Department of Transportation's (DOT) 1998 Strategic Plan. This plan includes outcome measures for each of the three strategic goals.

MISSION GOAL: SAFETY.

By 2007, reduce U.S. aviation fatal accident rates by 80 percent from 1996 levels.

Performance Goals:

- *Fatal Aircraft Accident Rate:* By 2007, reduce the U.S. aviation fatal accident rate per aircraft departure, as measured by a 3-year moving average, by 80 percent from the 3-year average for 1994-1996.
- *Overall Aircraft Accident Rate:* Reduce the rate per aircraft departure.
- *Fatalities and Losses by Type of Accident:* Reduce the number and type of fatalities and losses from accidents that occur for each major type of accident.
- *Occupant Risk:* Reduce the risk of mortality to a passenger or flight crew member on a typical flight.

MISSION GOAL: SECURITY.

Prevent security incidents in the aviation system.

Performance Goals - Improve by a specified percentage from a 1998 baseline:

- *Explosive Device and Weapons Detection:* Increase ability to detect improvised explosive devices (through use of simulants) and weapons in checked and carry-on baggage and on the person with no significant increase in operational impact by 2003.
- *Compliance with Security Requirements:* Increase as measured by compliance audits.
- *Risk and Vulnerability at Airports and Airway Facilities:* Reduce by 2005 as measured by risk assessments.

MISSION GOAL: SYSTEM EFFICIENCY. Provide an aerospace transportation system that meets the needs of users and is efficient in the application of FAA and aerospace resources.

Performance Goals:

- *System Flexibility:* Reduce total number of published air traffic control (ATC) preferential routes by 7 percent from the 1994 baseline by 1998.
- *User Access:* Reduce the average call waiting times for Automated Flight Service Stations (AFSS) by 20 percent from the 1994 baseline by 1999.
- *System Delays:* Reduce the rates of volume- and equipment-related delays by 20 percent from the 1994 baseline by the year 2000.



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For each of the three mission goals, FAA has established a number of **strategic focus areas** and supporting projects that will contribute to achieving the goals.

SAFETY – Strategic Focus Areas:

- **Regulatory Reform:** Implement a regulatory process that is timely, responsive, and consistently applied.
- **Safety Information Sharing and Analysis:** Develop partnerships with the aviation community to share data and information supporting safe, secure aviation.
- **Surveillance/Inspection:** Develop new approaches to working with others on inspection and surveillance and targeting FAA resources where they will do the most good.
- **Accident Prevention:** Based on detailed root-cause analysis, prevent accidents before they happen through appropriate, targeted, systematic interventions in the aviation system.

SECURITY – Strategic Focus Areas:

- **New Security Baseline:** Continue to improve the baseline security system for civil aviation by establishing a solid baseline, then addressing key vulnerabilities that remain.
- **Performance and Procedures:** Maximize the performance capability of people working in security for air carriers and airport operators and at FAA facilities.
- **Information Security Architecture:** Develop a systematic information security architecture that describes the future National Airspace System (NAS) information security system FAA will build toward.

SYSTEM EFFICIENCY – Strategic Focus Areas:

- **NAS Modernization:** Using the NAS Architecture as the guideline, continually refine and update the NAS to achieve efficient aerospace systems and operations.
- **Free Flight:** Within safety and environmental considerations, work toward giving aircraft the opportunity to fly in a way that gives them the most benefit as they define it.
- **Systems Integration:** Integrate airport and commercial space requirements into NAS planning and architecture.



There are four **enabling goals** in this plan which are not directly a part of the core FAA mission, but which are critical to accomplishing the mission. These enabling goals and the strategic focus areas supporting them cut across all three of the mission goals.

PEOPLE: THE FOUNDATION OF ACCOMPLISHMENT

Provide a model work environment supporting the productive, diverse, and highly skilled work force needed to carry out the FAA mission into the 21st century. To accomplish this, FAA will focus on:

- *Intellectual Capital*
- *Managing the Diverse Work Force*
- *Quality of Work Life*

REFORM: THE FRAMEWORK FOR ACCOMPLISHMENT

Fundamentally change the way the FAA operates by implementing personnel and acquisition reform and pursuing financial reform. FAA will focus on:

- *Acquisition Reform*
- *Personnel Reform*
- *Financial Reform*

THE ENVIRONMENT: OUR RESPONSIBILITY

Address what may represent the single greatest challenge to the continued growth and prosperity of civil aerospace as we enter the 21st century, focusing on:

- *Understanding Aerospace Environmental Impacts*
- *Reducing Aerospace Environmental Impacts*
- *Quantify And Mitigate Environmental Impacts Of FAA Activities*

GLOBAL LEADERSHIP: COMMITMENT TO WORLDWIDE IMPROVEMENTS

Improve safety, security, and system efficiency globally through:

- *International Safety Oversight*
- *Global Safety Action Plan*
- *Global Communication, Navigation, Surveillance/Air Traffic Management (CNS/ATM) Development And Implementation*
- *International Regulatory Harmonization*



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In addition to the mission goals and the supporting enabling goals, FAA has identified the following **corporate (cross-cutting) strategies** as the most fruitful tools in the implementation of the plan.

Cross-Cutting Strategies Providing Continuous Improvement:

- **Partnership.** Mission goals must be achieved through many kinds of partnership with customers and stakeholders. Clearly, partnership with the transportation community is the only way to achieve the mission-based goals in this plan. Just as important, FAA must work in close partnership with its employees and their unions. FAA must also address employee interests as expressed by the employee associations.
- **Communication.** Communication must be two way, listening and speaking. FAA will communicate with external customers and partners, employees, and unions.
- **Risk Management.** FAA must target regulations and resources where they do the most good. FAA will use its newly developed risk management policy and other tools to target resources where they will do the most good.
- **Research, Engineering, Development, and Acquisition.** FAA will take full advantage of its new acquisition capability to support research, engineering, and development as a major strategy to develop and field new technologies that help FAA achieve its mission and meet customer needs.
- **Rapid Deployment of Existing Technology.** FAA must not only research, develop, and acquire new technology, but it must move quickly to deploy both technology it has developed and technology from other sources, including commercial-off-the-shelf (COTS) and non-developmental item (NDI) systems.



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Introduction

The Federal Aviation Administration (FAA) consists of 47,000 people dedicated to improving the safety, security, and efficiency of aviation and commercial space transportation in a manner compatible with the environment. The FAA, however, is only a part of the worldwide aerospace community. The FAA leads, influences, guides, and encourages more than it actually operates and regulates. Safe, secure, efficient aerospace transportation requires close cooperation among all parts of aerospace and the transportation community, other Federal agencies, and the traveling and shipping public. This plan, then, is the beginning of a national aerospace plan for 1998 through 2003 and beyond. It focuses on FAA activities but sets direction, not just for FAA, but for the national aerospace community operating in a global transportation environment.

FAA's key functions under Title 49, United States Code are to:

- Regulate and encourage aviation safety and security;
- Develop, operate, and maintain a safe, secure, and efficient national air traffic management system;
- Collaborate in developing a safe, secure, efficient worldwide civil aviation system;
- Regulate air commerce to fulfill the requirements of national defense;
- Assist in development of airports; and
- Help mitigate adverse environmental impacts of aviation.

FAA commercial space functions specified in the Commercial Space Launch Act of 1984 are to:

- Protect public health and safety, safety of property, and U.S. foreign policy and national security interests;
- Ensure compliance with international obligations of the United States: and
- Encourage, promote, and facilitate the U.S. commercial space transportation industry.

The ultimate customers of all aerospace are passengers and shippers. The FAA also views the transportation community as its customers and partners. That includes the B-747 mechanic and the helicopter pilot and nurse rushing an injured child to the hospital. Airlines, general aviation and commercial pilots, commercial space launch companies and site licensees, manufacturers, airports, and communities seeking noise relief are all customers and partners. So are surface transportation modes that link airports to communities. FAA's own diverse employees are key partners. Each customer and partner has different needs and speaks with a different voice. FAA must listen, balance those needs, and act.



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The global aerospace environment is discussed in appendix A. It contains driving forces and opportunities for change, but also restraints. Forces for change include increased public focus on safety and security; increasing demand for FAA and aerospace services; the need for flexibility for a wide variety of aircraft and routings; new technologies; an aging air traffic management system; and increasing globalization of aerospace and American travel. FAA and aerospace face opportunities for change through its people, technologies, and processes. There are also restraints. No single organization is completely responsible for aerospace. FAA leads and influences but does not perform most aerospace activities. Only the aerospace community acting as a team can achieve the goals in this plan. The FAA, as a leader of this team, faces its own constraints. FAA culture often resists change. The FAA, like many public agencies, is caught in the dilemma of higher demand and expectations together with stable or decreasing resources. It needs both the support and the constructive criticism of its aerospace customers and partners to fulfill its role.

This strategic plan provides the *long-term framework* to match resources with initiatives for long-term change. It supports the Department of Transportation's (DOT) new Strategic Plan (see appendix B) and responds to numerous evaluations (see appendix C). It is a basis of FAA resource requests and provides long-term measures of success. Finally, it supports both FAA and DOT efforts under the Government Performance and Results Act (GPRA). (see appendix D.)

This is not, however, the only aerospace plan. The National Aeronautics and Space Administration (NASA) Strategic Plan has a strong aviation component in addition to its space component and adopts the same safety goal as this plan. The Department of Defense (DoD) must plan for its own air traffic control system and for coordinating its system and equipping its aircraft to operate in the civilian National Airspace System (NAS). DoD also has the U.S. Space Command, which has its own long-range plan. Private aerospace organizations have plans as well. FAA itself has numerous very important plans, including the Capital Investment Plan (CIP) and the Research, Engineering, and Development (RE&D) Plan.

Nor is this the only transportation plan. Just as aviation and commercial space transportation are parts of the transportation system, so is the FAA a part of DOT. The safety, security, and system efficiency goals presented in this plan directly support the DOT Strategic Plan goals of safety, national security, mobility, economic growth and trade, and human and natural environment. This plan is a basis for FAA participation with other modes of transportation as well--sharing research in such areas as flammability, toxicity, and cabin integrity; sharing and co-developing systems such as the Global Positioning System (GPS) of satellites; and linking transportation modes together, particularly linking airports to metropolitan transportation. The key is to ensure that all these plans and programs coordinate with each other and with the overarching direction contained in the DOT Strategic Plan.



FAA Mission, Vision, and Values

FAA helps shape the future of aerospace based on a mission as defined by legislative mandate (especially Title 49, United States Code), the direction established by the Administration, Congress, and the Department of Transportation, the expectations of its customers and partners, and the vision and values of its people. The mission has changed slightly from the last Strategic Plan, responding to Congressional legislation that strengthens FAA's focus on its fundamental safety mission. The following are statements of the mission, vision, and values FAA will apply in shaping the future of aerospace.

FAA VISION

To provide the safest, most efficient and responsive aerospace system in the world and to be the best Federal employer, continuously improving service to customers and employees.

FAA MISSION

FAA provides a safe, secure, and efficient global aerospace system that contributes to national security and the promotion of U.S. aerospace safety.

As the leading authority in the international aerospace community, FAA is responsive to the dynamic nature of customer needs, economic conditions, and environmental concerns.



FAA VALUES

We Believe in:

- ◆ Trust
- ◆ Integrity
- ◆ Honesty
- ◆ Involvement
- ◆ Teamwork
- ◆ Diversity
- ◆ Respect

We Are Committed To:

- ◆ Responsiveness
- ◆ Quality
- ◆ Timeliness
- ◆ Fiscal Responsibility
- ◆ Accountability
- ◆ Communication

We Will Achieve These Values By

- * Giving people what they need, then letting them do their jobs.
- * Making timely decisions at the lowest level and respecting them.
- * Committing our best to our customers.
- * Valuing our people.
- * Being open to new ideas.
- * Speaking out for what we believe, even when it is unpopular.
- * Recognizing each person's contributions and realizing each person's full potential.
- * Collaborating across organizations.
- * Taking pride in what we do.



Building Tomorrow's Aerospace System: A Structure for Accomplishment

Mission-Based Goals: Pillars of Accomplishment

The three goals of this strategic plan are taken directly from the mission of the agency: "FAA provides a safe, secure, efficient global aerospace system." They are national goals for civil aerospace, not for FAA alone, and they support the DOT strategic goals.

SAFETY:	Reduce U.S. aviation fatal accident rates by 80 percent from 1996 levels by 2007.
SECURITY:	Prevent security incidents in the aviation system.
SYSTEM	Provide an aerospace transportation system that
EFFICIENCY:	meets the needs of users and is efficient in the application of FAA and aerospace resources.

Strategic Focus Areas: Holding the Plan Together

Goals are only achieved with coordinated action. Projects must be fitted together into an overall plan for accomplishment. The pattern that holds them together is a set of areas that focus how each mission goal will be accomplished. FAA senior management has developed the following set of focus areas:

SAFETY:	SECURITY	SYSTEM EFFICIENCY
Regulatory reform	Security baseline	NAS modernization
Safety information sharing	Performance and procedures	Free flight
Surveillance/Inspection	Information security	Systems integration
Accident Prevention	architecture	



Enabling Goals to Build Accomplishment

Enabling goals are internal goals that enable the accomplishment of FAA's mission. This strategic plan defines success and areas of focus for each enabling goal.

PEOPLE: The Model Work Environment.

FAA's mission-based goals are the pillars of tomorrow's aerospace system. People are the foundation. To enable its people to achieve the mission, FAA sets the following goal:

MODEL WORK ENVIRONMENT:	Create and maintain a hospitable work environment that supports a productive and skilled work force reflective of the Nation's diversity to accomplish the mission and better serve our customers now and into the 21st century.
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Efforts will be focused on recruiting, training, maintaining, and retaining the people who will accomplish this goal.

REFORM: The Framework. The challenges facing FAA require the agency not just to modernize the air traffic management system or redeploy its inspection work force, but to change fundamentally the way it does business. Regulatory reform is a focus area under the Safety goal. Congress has given FAA substantial freedom to reform acquisition and personnel. Financial reform is a final key to achieving FAA's mission. The National Civil Aviation Review Commission and others have thoroughly documented the need to change how FAA is financed and how it controls costs.

ENVIRONMENT: Our Responsibility. Environmental issues represent an important challenge to continued growth and prosperity of civil aerospace as we enter the 21st century. Protecting the human and natural environment is a key goal in the DOT Strategic Plan which FAA supports. We will continue to reduce the environmental impact of aviation in ways that do not unduly constrain aviation activities.

GLOBAL LEADERSHIP: Commitment to Worldwide Improvements.

FAA is committed to working with aviation partners worldwide to improve civil aviation safety, security, and efficiency. Americans fly worldwide, and American business, specifically including American aviation, is global. Foreign airlines and people fly into and out of the United States. Commercial space transportation faces an inherently international market, with formidable foreign competition from Europe, Russia, and China. So FAA must maintain a global perspective and pursue a harmonized, global aerospace system that provides the high standards of safety, security, and system efficiency that Americans and American businesses need. Successful pursuit of FAA's mission goals requires full consideration of international aerospace issues.

Key Strategies: Management Tools for Accomplishment

Goals can only be achieved through sound, cross-cutting management strategies and approaches that guide day-to-day activities. FAA is committed to partnerships, communication, risk management, research and engineering, and development and deployment of technology, including information technology, as key strategies that will enable the aerospace community to accomplish the goals in this plan.



Making It Happen: The Mission Goals And Acting to Implement Them

This Strategic Plan provides broad, long-term direction for FAA and guidance for all of aerospace. To succeed, that direction must be translated into actions, carried out, and the results compared to standards of success. This section moves from the strategic to the tactical by describing, for each of the three mission-based strategic goals:

- A set of performance goals, with targets and dates, to measure success;
- Key cross-cutting strategies as they apply to the strategic goal;
- Strategic Focus Areas, broad areas of activity where FAA will concentrate its efforts over the next 5 years; and
- A small, focused set of near-term (largely FY 1998) projects that FAA will track corporately to ensure that it moves toward its strategic goals.



Mission Goal: **SAFETY**

By 2007, reduce U.S. aviation fatal accident rates by 80 percent from 1996 levels.*

Primary Performance Goal (Outcome Measure of Success):

- **Fatal Aircraft Accident Rate:** By 2007, reduce the U.S. aviation fatal accident rate per aircraft departure, *as measured by a 3-year moving average, by 80 percent from the 3-year average for 1994-1996.

Additional Performance Measures:

- **Overall Aircraft Accident Rate**
- **Fatalities and Losses by Type of Accident**
- **Occupant Risk:** If a passenger or flight crewmember takes a flight at random from among those of interest (e.g., U.S. domestic flights in 1998), what is the probability of mortality? Calculated by multiplying the fraction of flights that end in fatal crashes by the fraction of passengers and flight crewmembers killed in those crashes.

FAA will also track the absolute number of accidents and fatalities to conform to DOT performance measurement. FAA will start by tracking rates for commercial aviation, including scheduled flights on aircraft of 10 seats or more, and expand to include nonscheduled and general aviation.

Supports DOT Strategic Goal: SAFETY.

Key Strategies that will Enable this Goal:

FAA will work with the aerospace community to achieve the safety goal by using two basic approaches highlighted in the Administrator's Safety Agenda: (1) build on currently successful efforts to identify the root causes of past accidents; and (2) use a more proactive analytical approach, with new data sources, to identify key risk factors and intervene to prevent potential causes of future accidents. Key strategies are:

- **Partnerships:** Team with the world aerospace community and FAA's employees to deliver the safety goal jointly. The Aviation Regulatory Advisory Committee (ARAC), for example, uses partnership between FAA and the aviation community to advance safety.
- **Global Leadership:** Influence international organizations to develop, harmonize, and implement improved safety standards which meet the high expectations of the American aerospace community.
- **Research:** In partnership with NASA, the Department of Defense, and other public and private organizations scientifically study issues and technologies (especially human factors) to improve policies, procedures, and equipment.
- **Acquisition,** deployment, and use of research results is key to improving safety.
- **Rapid Deployment:** Deploy existing safety-improving technology operationally.
- **Risk Management:** Safe transition to improved technology.



Strategic Focus Areas and Near-Term Projects:

Focus Area: Regulatory Reform. FAA's regulatory process has been criticized as slow, unresponsive, and inconsistently applied. The Administrator's Safety Agenda recognizes the need for a reengineered rulemaking process in which FAA will develop its regulations more efficiently and with stronger safety analysis. Cultural change is needed. There is also a need to minimize the burden of regulation, and to support the White House Commission on Aviation Safety and Security recommendation that costs alone not be dispositive in deciding a course of action. Key elements of regulatory reform, which are a good template for partnership anywhere, are:

- early involvement of major stakeholders, for example, through ARAC;
- early resolution of divergent issues;
- early buy-in of agency and Department senior-level managers;
- rulemaking team empowerment; and
- streamlined review process.

A major goal of regulatory reform is to publish aviation regulations within 24 months. FAA will focus on regulatory reform as it addresses several near-term regulatory projects.

Key Near-term Projects under Regulatory Reform

- Publish Enhanced Ground Proximity Warning System (EGPWS) Notice of Proposed Rulemaking (NPRM) for turbine-powered airplanes with six or more passenger seats.
- Make low-end avionics more affordable by changing the FAA certification process for part 23 aircraft.
- Gain legislative authority to license commercial space reentry operations.

Focus Area: Safety Information Sharing and Analysis. To reduce the aviation fatal accident rate by 80 percent, FAA's role must grow beyond that of regulator and enforcer. FAA must also be a partner with an aviation community that itself seeks to identify and address the root causes of aviation accidents. The Administrator's Safety Agenda discusses the attributes of this root-cause analysis. Voluntary sharing of safety information is fundamental to it. Protecting information and its sources is needed to gain voluntary disclosure. Thus, FAA must balance its enforcement activities with the need to share information in order to garner the maximum improvement in safety. Traditional methods of reacting to each accident with new regulations to prevent its re-occurrence is no longer enough. The data now available from flight recorders, maintenance reports, and other sources can be used to analyze operations and develop procedures or regulations to prevent accidents before they occur.

Key Near-term Projects under Information Sharing

- Issue a rule for Flight Operations Quality Assurance (FOQA) Programs to provide immunity for voluntary disclosure.
- Issue a rule for protection of certain voluntarily provided safety information from Freedom of Information Act (FOIA) requirements.
- Put in place a global information sharing prototype that identifies and addresses potential causes of accidents to prevent future accidents.
- Undertake Safety Performance Analysis System (SPAS) training and enhancements.



Focus Area: Surveillance/Inspection. While partnership, information sharing, and addressing human factors are keys to improving safety, FAA must also get the maximum benefit possible from its surveillance and inspection programs. This means working with others on inspection and surveillance and targeting FAA resources where they will do the most good. The Administrator's Safety Agenda seeks to build on several recent initiatives in which feedback is a unifying element, including the Air Transportation Oversight System (ATOS), the Air Carrier Certification Standardization and Evaluation Team, and the Aircraft Certification Safety Evaluation Program (ACSEP). The following near-term projects further that agenda and approach.

Key Near-term Projects under Surveillance/Inspection

- Implement Aircraft Certification Systems Evaluation Program (ACSEP) resource targeting.
- Implement Air Transportation Oversight System (ATOS).

Focus Area: Accident Prevention. Based on detailed root-cause analysis, FAA seeks to work with the aviation community to prevent accidents before they happen through appropriate targeted, systematic interventions. The Administrator's Safety Agenda highlights three broad initiatives, each addressing several issues which will change over time. The Airline Initiative addresses uncontained engine failures, controlled flight into terrain (CFIT), loss of control, weather, and flight deck human factors. The General Aviation Initiative addresses CFIT, weather, runway incursions, loss of control, and decisionmaking. Finally, the Cabin Safety Initiative addresses passenger seatbelt use, carry-on baggage, child restraints, and passenger interference.

Key Near-term Projects under Accident Prevention

- Prevent surface errors that may lead to runway incursions.
- Develop flight deck/controller interface standards (human factors in Flight 2000 implementation).
- Trilateral (United States, Canada, and Mexico) Controlled Flight Into Terrain Committee.
- Flight crew/vehicle interface and interaction.

Transportation Community Involvement:

The transportation community is the front line for safety. In aerospace, safety activities and programs by airlines, manufacturers, pilots, airports, commercial space launch operators and site owners, and aerospace groups representing general aviation and all other parts of the aerospace community implement FAA regulations. They then go beyond that to ensure the safe aerospace system that everyone desires. Other Federal agencies have strong safety roles. Safety is a critical DOT Strategic Plan goal. FAA supports the Department and works with other modal administrations to share research in areas such as flammability, toxicity, and cabin integrity; co-develop and safely use new systems such as GPS; and ensure that the safety of ground as well as air transportation is designed into airports and their surface connections to metropolitan areas. The National Transportation Safety Board investigates accidents and makes recommendations to FAA and to the aerospace community. NASA has both aviation and space functions. NASA has accepted the safety goal presented here and set an additional goal of reducing the aviation fatal accident rate by a factor of 10 in 20 years. NASA's key contribution is research; NASA reprogrammed \$500 million to invest in aviation safety research over the next 5 years. The Department of Defense (DoD) operates its own air traffic control system in close coordination with the civil system. DoD must also equip its aircraft to operate in the civil system. A key issue for DoD is safe operation in air and space traffic control systems around the world, often



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in systems not as safe as the United States. DoD supports FAA and the International Civil Aviation Organization (ICAO) in addressing safety issues in these systems.

Partnership is key to achieving the safety strategic goal. FAA, NASA, and DoD are developing, coordinating, and implementing interagency safety research plans based on NASA's "Toward a Safer 21st Century -- Aviation Safety Research Baseline and Future Challenges." Human factors is one of the most important areas for improving safety, and is guided by the jointly developed National Plan for Aviation Human Factors, which FAA published in 1995. ARAC, likewise, involves the aerospace community with FAA on an ongoing basis to develop better safety regulations. FAA partnership with the aviation community has led to numerous successes, including safety schools that have trained over 5,000 people and the Advanced Qualification Program that has produced more qualified flightcrews and safer aviation. The commercial space transportation industry is in its infancy, and is working in close cooperation with FAA, NASA, DoD, and others to continue its fine safety record.



Mission Goal: **SECURITY**

Prevent security incidents in the aviation system.

Performance Goals (Outcome Measures of Success):

- **Explosive device and weapon detection:** Improve ability to detect improvised explosive devices (through use of simulated explosive devices, called simulants) and weapons with no significant increase in operational impact:
 - in checked baggage (specified* improvement over 1998 baseline by 2003);
 - in carry-on baggage (specified* improvement over 1998 baseline by 2003);
 - on the person (specified* improvement over 1998 baseline by 2003).
- **Compliance with Security Requirements:** Increase compliance with security requirements by a specified* percent over a 1998 baseline by 2003.
- **Airport Vulnerability:** Reduce risk at airports by 2005 by a specified* percentage from a 1998 baseline as measured by airport/air carrier vulnerability assessments.
- **Airway Facility Risk:** Reduce risks at airway facilities by 2005 by a specified* percentage from a 1998 projected baseline as measured by facility risk assessments.

* Specified improvements and baselines are protected under C.F.R. Part 191.

Supports DOT Strategic Goal: **NATIONAL SECURITY.**

Key Strategies Applied to the Goal:

- **Partnerships** with government, airports, and air carriers to improve equipment and personnel, and international partnerships to improve security worldwide.
- **Research, engineering, and development** of advanced security technologies and techniques and **acquisition**, installation, and use of new systems.
- **Rapid deployment** of security equipment.

Strategic Focus Areas and Near-term Projects:

Focus Area: New Security Baseline. FAA's approach to aviation security has long been to establish a solid baseline level of security at airports throughout the Nation, then to address key vulnerabilities that remain. The White House Commission stressed the need to continue to improve the baseline security system for civil aviation. The following projects, drawn from White House Commission recommendations, respond.

Key Near-term Projects under New Security Baseline:

- Conduct airport vulnerability assessments.
- Implement automated passenger profiling and bag match using the Computer Assisted Passenger Screening (CAPS) system, with full civil liberty safeguards.
- Deploy existing security technology.



Focus Area: Performance and Procedures. Once a solid baseline system is in place, the next step is to maximize the human factors--the performance capability of people working in that system for air carriers and airport operators and at FAA facilities. That is done by constantly testing all parts of the aviation security system, improving the quality of its components, and assessing vulnerabilities that the system may not fully protect. The following near-term projects address these areas.

Key Near-term Projects under Performance and Procedures

- Conduct testing and audits of the system.
- Develop certification standards for and certify screening companies.

Focus Area: Information Security Architecture. A security architecture is presently being defined for implementation as part of the National Airspace System (NAS) modernization. The information security architecture will specify the framework, policies, concepts of operation, and security engineering methodologies to minimize the vulnerability of NAS information to loss, misuse, or unauthorized access. Security vulnerability and risk assessments of the major systems will be completed to assist each of the NAS elements to capture all significant potential security threats.

Key Near-term Projects under Information Security Architecture

- Outline the technology and infrastructure requirements for future aviation information security.

Transportation Community Involvement

Security, like safety, is provided by the entire transportation community. Airports, airlines, and a host of Federal, state, local, and even international agencies and organizations that provide intelligence and enforcement are all FAA partners. FAA shares information on security threats with other modes of transportation and with law enforcement at all levels of government. Indeed, the proper focus of security is on incidents against the United States as a Nation, not just airports and airlines. FAA and the airlines are together deploying elements of the Screener Proficiency Evaluation and Reporting System (SPEARS), and all major carriers plan to implement CAPS voluntarily in advance of a regulation by FAA. FAA has established consortia at 41 of the busiest airports, and voluntary security consortia are expected at well over 100 airports by the end of 1998.

Other Federal agencies are also partners. The White House Commission on Aviation Safety and Security made some 57 recommendations, 31 of which addressed aviation security. In response, a host of agencies, including NTSB, the FBI, the Bureau of Alcohol, Tobacco, and Firearms (ATF), and the Customs and Postal Services have come together with DOT/FAA to develop a plan to implement the recommendations. Many of the projects in this plan support recommendations of the White House Commission.

Aerospace security, in turn, is part of national security. A key FAA and aerospace contribution to national security is the Civil Reserve Air Fleet. In times of crisis, such as the Gulf War, U.S. airlines provide civilian aircraft to fly troops and equipment to key locations throughout the world. FAA guarantees insurance for those aircraft. In time of war, the President can go a step further and transfer to the Secretary of Defense a duty, power, activity, or facility of the Federal Aviation Administrator.



Mission Goal: SYSTEM EFFICIENCY

Provide an aerospace transportation system that meets the needs of users and is efficient in the application of FAA and aerospace resources.

Performance Goals (Outcome Measures of Success):

- **System Flexibility:** Reduce total number of published ATC preferential routes by 7 percent from the 1994 baseline by 1998.
- **User Access:** Reduce the average call waiting time for Automated Flight Service Stations (AFSS) by 20 percent from the 1994 baseline by 1999.
- **System Delays:** Reduce the rates of volume- and equipment-related delays by 20 percent from the 1994 baseline by the year 2000.

Supports DOT Strategic Goals: MOBILITY; ECONOMIC GROWTH AND TRADE; HUMAN AND NATURAL ENVIRONMENT

Key Strategies Applied to the Goal:

- Implement Free Flight in **partnership** with the users and within FAA organizations.
- Work with the international community to achieve **global consensus** to modernize and improve the efficiency of the global aerospace system.
- **Research, engineering, development, and then acquisition** of improved systems is key to modernization and increased system efficiency.
- Work with aerospace and involve communities to **mitigate environmental concerns** that arise from meeting aviation system requirements.
- Develop appropriate **financing methods** for overall funding of the FAA.

Strategic Focus Areas and Near-term Projects:

Focus Area: NAS Modernization. The existing air traffic system must be updated. Problems such as Year 2000 must be addressed. Opportunities such as those presented by information technology must be realized. Developing an efficient aerospace system requires describing the system to be built and how it meets aerospace needs. The National Airspace System (NAS) Architecture continually updates the system description. NAS modernization incorporates the following projects.

Key Near-term Projects under NAS Modernization

- System Integration Operational Evaluation.
- Standard Terminal Automation Replacement System (STARS).
- Wide Area Augmentation System (WAAS).
- Display System Replacement (DSR).
- Year 2000 Compliance.



Focus Area: Free Flight. Free flight is the opportunity to fly anywhere, anytime by the best route as judged by the user, subject only to the safety restriction that one aircraft not fly too close to another. A truly efficient aerospace system for users will provide free flight, allowing aircraft to fly in ways that give users the most benefit as they define it.

Key Near-term Projects under Free Flight

- Collaborative Decision Making (CDM).
- Conflict Probe - User Request Evaluation Tool (URET).
- Center-TRACON Automation System (CTAS).
- Aeronautical Datalink (ADL).
- Restrictions Elimination.

Focus Area: Systems Integration. DOT organizations including FAA, along with Federal, state, local, and private organizations, all help improve transportation system efficiency. Only close communication and integration of efforts will lead to efficient transportation. Thus, when FAA's Research and Acquisition organization oversees development of a new technology, the Air Traffic Services organization must recognize the need for it and train and prepare its people to use it. When a new airport runway is built, the lighting, approaches, and radar coverage must be provided so that the runway can be used. Airports must be well linked to local surface transportation and local transportation planning. Information technology architectures, including system security, telecommunications, and others, must be integrated under the NAS Architecture. More recently, there are opportunities to integrate commercial space transportation and aviation by having aircraft land at spaceports, using the Global Positioning System (GPS) to locate the position of space vehicles, and even, in the future, having space vehicles land and take off from commercial airports. This will require close coordination among FAA's Research and Acquisition, Air Traffic Services, and Commercial Space Transportation offices to support developing an integrated air and space traffic management system. The following near-term projects address the integration of airport, capacity, and commercial space needs into the traffic management system.

Key Near-term Projects under Systems Integration

- Integrate airport/capacity needs in the National Airspace System (NAS).
- Space and Air Traffic Management System (SATMS).

Transportation Community Involvement

People and goods do not move just airport-to-airport. They originate near one airport and terminate near another. System efficiency, then, is transportation efficiency. In such a system, the aerospace community flies airplanes and launches space vehicles. FAA and airport and spaceport owners provide infrastructure that serves aerospace transportation and links it to surface transportation. Surface transportation modes link airports and spaceports to nearby metropolitan and rural areas. The Department of Transportation and all the modal administrations, including FAA, support the transportation system, oversee it, and coordinate linking its parts together into an efficient whole that serves the Nation.

Examples of this coordination abound. In the Federal Radionavigation Plan, the DOT's Volpe Center, the United States Coast Guard, FAA, and others coordinate policy and programs concerning navigation systems, including GPS and LORAN, which are used



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by many modes of transportation. Airport access is another area of collaboration. FAA and the Federal Highway Administration (FHWA) have jointly developed guidelines for design and construction of surface transportation facilities at airports. FAA, FHWA, the Federal Transit Administration (FTA), and the Port Authority are all working together to build a light rail line to JFK Airport.

A key partnership to improve the efficiency of the aerospace part of the transportation system is Free Flight. Implicit in Free Flight is that a truly efficient aerospace system is one the aerospace community can use to maximum benefit. So the aerospace community participates directly in Flight 2000 to test new systems in a realistic environment. FAA, the airlines, and others have worked together to identify the capabilities needed for Free Flight and incorporate them into the evolving NAS Architecture.

Partnership among all Federal agencies that support transportation is crucial to achieving an efficient system. NASA contributes key research on safety and new technologies ranging from reliable, low-cost general aviation avionics to the hypersonic shuttle and quieter, cleaner aircraft engines. NASA and FAA have signed a formal memorandum of understanding on air traffic management research, and there is an Interagency Integrated Product Team in place that formulates that research agenda on a national basis and produces a yearly national plan. NASA has contributed nearly \$600 million excluding personnel costs to this area over 7 years. DoD is also a crucial partner. DoD operates its own ATC system which meshes with the civil NAS to serve both civil and military uses. Restrictions and Special Use Airspace are key FAA concerns in this partnership, and DoD is concerned about NAS equipment requirements which must be met on military aircraft.

Finally, as commercial space transportation matures, it and aviation will be more closely linked. Aircraft may soon use spaceports, and spacecraft may one day take off and land at major airports. The two will increasingly share navigation and surveillance systems, and will need to operate together without restricting each other. The Space and Air Traffic Management System (SATMS) project is key to achieving that result.



Making it Happen: Enabling Goals and Strategies

People: The Foundation of Accomplishment The Model Work Environment at FAA

Create and maintain a hospitable work environment that supports a productive and skilled work force reflective of the Nation's diversity to accomplish the mission and better serve our customers now and into the 21st century.

Definition of Success:

- Achieve a significant increase in positive employee perceptions of the FAA work environment as measured by agencywide and line of business (LOB) work force surveys.
- Make a positive shift in the agencywide and LOB work force profiles related to the reduction of under-representation as compared to the previous year's Affirmative Employment Program results.
- Establish baseline(s) derived from FY 1998 data against which success in reducing incidents of harassment and resolving complaints of harassment will be measured in successive outyears.
- Training will be assessed by success at achieving the mission goals and sustaining the Model Work Environment (MWE).

Strategic Focus Areas and Near-term Projects:

Focus Area: Intellectual Capital. People are the most valuable FAA resource. Just as physical assets require maintenance and investment in order to be fully productive, FAA values and provides education and training. This creates a continuous learning environment that develops and maintains the intellectual capital that not only gets today's mission done, but positions the agency to achieve present and future mission-based and enabling goals, including MWE.

Key Near-term Projects under Intellectual Capital:

- FAA lines of business (LOB) are to develop and implement annual work force training plans as part of their annual performance plans to achieve the safety, security, and system efficiency mission goals and the enabling goals, including the model work environment.
- Expand academic credit for agency-provided training.

Focus Area: Managing the Diverse Work Force. FAA will reflect the Nation's diversity and eliminate any artificial barriers to the advancement and full contribution of all employees. FAA will reach out in recruiting to widen the pool of qualified applicants for agency vacancies. FAA will continue to develop its existing employees at all levels to widen opportunities for advancement. FAA is also committed to eliminating all forms of unlawful discrimination and harassment through a multi-faceted approach emphasizing guidance, training, information on what constitutes unlawful discrimination and harassment, and accountability.



Key Near-term Projects under Managing the Diverse Work Force:

- LOB's will develop and implement affirmative national and regional recruitment efforts including broad innovative outreach (e.g., Historically Black Colleges and Universities (HBCU), Hispanic Serving Institutions (HSI), Native American/Alaska Native (NAAN), and Collegiate Training Program (CTI) schools) to fill our vacancies while reducing the specific areas of under-representation set forth in the agency's annual Affirmative Employment Plan.
- Develop and deploy training that ensures nonsupervisory FAA employees, managers, and supervisors are aware of FAA MWE policies and programs and understand their accountability for implementing EEO Affirmative Action and prevention of sexual harassment initiatives.
- Develop agency system to ensure the timely and proper resolution of allegations of harassment.
- Ensure new facilities provide the necessary accessibility for people with disabilities as required by law.

Focus Area: Quality of Work Life. FAA is committed to provide a model work environment, enabling employees to perform at their highest potential and contribute to the organization. Instrumental in achieving this is measuring employee satisfaction across several dimensions and using this information and other employee feedback as inputs to action plans for improving the quality of work life.

Key Near-term Projects under Quality of Work Life:

- Meet the DOT-assigned telecommuting goal of 5 percent of the eligible work force telecommuting by the end of FY 1998.
- Survey all personnel to establish baseline of indicators related to MWE and use the information to conduct follow-up actions designed to improve the environment.



Reform: The Framework For Accomplishment

FAA is reforming how it does business, with emphasis on three areas.

Focus Area: Acquisition Reform. FAA is reforming its acquisition process to make it faster, simpler, and more mission based. FAA's new, reformed Acquisition Management System (AMS) strives for a 50-percent reduction in acquisition cycle time and a 20-percent reduction in acquisition costs. There are four key elements.

Financial Management Reform emphasizes life-cycle costs, analysis, and accountability. **Cultural Change** emphasizes work force competency, understanding the new Acquisition Management System, and cross-organizational cooperation, and improving individual and organizational effectiveness through analysis and changes to the FAA culture in response to internal and external studies. **Acquisition and Procurement Process Improvements** (i.e., using an Integrated Capability Maturity Model (FAA-ICMM) to improve the way FAA manages, engineers, and acquires software-intensive systems across all phases of the FAA acquisition life cycle) are meant to improve management, mission analysis, dispute resolution, and planning linkage. **Measure Implementation** establishes measures for time, cost, quality, and performance, then uses them to compare new program results with cost, schedule, and performance baselines that describe good performance. This allows FAA to assess its success in managing its current and future information technology and other investments.

Focus Area: Personnel Reform. The 1996 DOT Appropriations Act authorized the development of an entirely new personnel system for FAA--a system largely unencumbered by the constraints of governmentwide personnel law and regulations. The goal was to replace the labyrinth of existing regulations and procedures with simpler and more flexible principles and systems. Drawing on common-sense approaches to government and best industry practice, the new personnel system is designed to provide increased flexibility in hiring, pay, and placement; protect employee rights; increase productivity; promote high standards of accountability; enhance the agency's intellectual capital; and create incentives for change.

Focus Area: Financial Reform. The National Civil Aviation Review Commission (NCARC) has completed its congressionally mandated review of FAA programs and financing. The Commission's recommendations are that revenues from aviation users and spending on aviation services be directly linked; that FAA management become performance based; that FAA's revenue stream become more cost based; that FAA control its operating costs and increase capital investments; and that airport capital needs be met. FAA will work to implement a funding system based on those recommendations that provides stable, adequate, fair, cost-based funding that allows FAA to meet legitimate aerospace needs.

The Environment: Our Responsibility

Environmental issues, and especially aviation noise, represent an important challenge to the continued growth and prosperity of civil aerospace as we enter the 21st century. The environmental impact of aerospace must be reduced in ways which do not constrain aviation and commercial space transportation activities.

Focus Area: Understanding Aerospace Environmental Impacts. FAA will participate with NASA and others in the aerospace community in research to



understand more fully the effect of aerospace on the atmosphere and ways to minimize the impacts.

Focus Area: Reducing Aerospace Environmental Impacts. FAA will combine regulation, research, technology, and procedures to help aerospace reduce and mitigate adverse environmental impacts, especially of aviation noise.

Focus Area: Quantify And Mitigate Environmental Impacts of FAA Activities. With an internal focus, FAA will assess its compliance with environmental requirements, eliminate release of highly toxic substances and reduce its use of hazardous materials, and implement and monitor FAA compliance with the DOT Order on Environmental Justice.

Global Leadership: Commitment to Worldwide Improvements

FAA is committed to working for worldwide improvements in safety, security, and system efficiency. The United States has the largest civil aviation infrastructure and the most civil aviation activities of any country. U.S. airlines and DoD operate worldwide. U.S. citizens travel abroad widely, in areas where FAA has no direct regulatory authority. U.S.-manufactured aircraft and technologies are used in every country of the world. U.S. aerospace is truly global. In this environment, FAA's interests must also be global.

FAA is the world's leading aviation authority and U.S. aerospace leads the world. They lead through safety, security, and technological initiatives and cooperative actions. FAA's leadership at the International Civil Aviation Organization (ICAO) has strengthened ICAO's safety and security programs. U.S. aerospace support of new technologies is creating a safer, more efficient global airspace system. FAA and U.S. aerospace also work cooperatively with international civil aviation partners--regional organizations, individual states, and industry associations--to increase the capability of other national authorities to regulate and operate safe civil aviation systems. International harmonization and development of civil aviation infrastructure, including institutional development, are key ways to bring about global improvements. FAA will focus its near-term international efforts in the following areas:

Focus Area: International Safety Oversight. FAA developed the U.S. International Aviation Safety Assessment (IASA) program to assess compliance of foreign civil aviation authorities (CAA) with international safety standards and the ability of CAA's to provide safety oversight of their national air carriers operating in the United States. ICAO has implemented its own assessment program. FAA's goal is for ICAO to provide information useful in determining the ability of individual States to oversee their regulatory programs in compliance with ICAO Standards. FAA will seek support and consensus among ICAO members for acceptance of a credible and effective ICAO Safety Oversight program. Ultimately, information provided by the ICAO safety oversight program might permit FAA to augment its own IASA program with information provided by ICAO assessments. For example, in some cases this could allow the FAA to forego an onsite inspection of a particular national civil aviation authority where adequate information was obtained from an ICAO assessment.

Focus Area: Global Safety Action Plan. In response to projected growth of aviation worldwide and forecast aircraft accident rates, the FAA has led development of ICAO's Action Plan for Global Aviation Safety. This plan has introduced specific safety



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recommendations (many based on U.S. technology) that can be implemented now, and calls for the formation of a cross-cutting group of experts from government and industry to develop new safety initiatives. The action plan was approved by the ICAO Council in June 1997 and is now in implementation.

Focus Area: Global CNS/ATM Development and Implementation.

ICAO's acceptance of a satellite-based Communication, Navigation, and Surveillance/Air Traffic Management (CNS/ATM) system with more user flexibility is part of a global transition from ground- to space-based air traffic systems. To gain the fullest safety and efficiency benefits, the new system must be implemented worldwide. International standards must be developed and adopted through collaborative efforts working through ICAO with FAA's international partners, and implementation must be synchronized to encourage implementation by air traffic service providers and aircraft operators worldwide. FAA will work to synchronize development and implementation of the NAS Architecture with ICAO's Global Plan for CNS/ATM Implementation to ensure interoperability and global integration.

Focus Area: International Regulatory Harmonization. Harmonization of aircraft certification, operations, maintenance, and airmen licensing requirements has real benefits for aviation authorities and global aviation. FAA international regulatory harmonization activities pursue a vision of a global network of civil aviation authorities working cooperatively to achieve the highest public confidence in international air transportation safety with optimum use of scarce regulatory resources and the lowest practicable regulatory burden to the system. FAA will work closely with the Joint Aviation Authorities of Europe (JAA) and other regional groups or individual countries as appropriate toward harmonized text, procedures, and technical activities.



Cross-cutting Strategies for Continuous Improvement

The following management tools are crucial to mission accomplishment.

- **PARTNERSHIP.** Achieving mission goals requires many kinds of partnership. FAA must share information and leverage resources with the aerospace community. It must jointly plan and research with other Federal agencies, coordinate with state and local governments on oversight, environment, and intermodal transportation connections, and harmonize regulations with foreign governments and international organizations. FAA and the Department of Transportation, of which FAA is a part, must work closely to achieve overall transportation goals, for example, by supporting the Garrett A. Morgan Technology and Transportation Futures Program. Community involvement is key to achieving aviation and transportation that best serves all Americans. Partnering with businesses that serve aerospace, including small and disadvantaged businesses, is key to achieving aerospace and national goals. Finally and most important, FAA must work in close partnership with its employees and their unions by delegating authority, sharing tasks, and empowering the work force. FAA must also address employee interests as expressed by the employee associations. Only with employee cooperation can FAA's goals be accomplished.
- **COMMUNICATION.** Communication is vital to understanding needs, coordinating to achieve goals, building public confidence, and gaining full benefits of employee involvement. Communication must be two way--listening and speaking. FAA will foster communication with external customers and partners, employees, and unions.
- **RISK MANAGEMENT.** The aerospace community must apply resources where they do the most good. This means risk management--assessment of where the greatest risks lie and what actions provide the most risk reduction. FAA has developed a risk management policy and is developing a number of tools. FAA will continue to develop and apply those tools to target its resources effectively.
- **RESEARCH, ENGINEERING, DEVELOPMENT, AND ACQUISITION.** Research, engineering, and development by FAA, NASA, the aerospace industry, and others are crucial to operating, maintaining, and modernizing the air traffic management system. FAA acquisition both modernizes the system and maintains and replaces the system's parts. Acquisition reform has given FAA the opportunity to speed up acquisition and focus it on customer and mission needs. It has increased FAA freedom to use other tools, such as information technology, to maximum benefit. Taking full advantage of that opportunity is a major FAA management strategy.
- **RAPID DEPLOYMENT OF EXISTING TECHNOLOGY.** FAA must not only research, develop, and acquire new technology, it must move quickly to deploy both technology it has developed and technology from other sources, including commercial-off-the-shelf (COTS) and non-developmental item (NDI) systems. The aerospace community must participate in and support those decisions, then prepare itself to use the new systems.



Ensuring Success and Accountability

The purpose of a strategic plan is to set long-range direction to implement change. That means starting with the strategic, then moving to the tactical as this plan has begun to do by identifying some key near-term projects in support of its goals. FAA's implementation is continuing as these projects are being incorporated into annual FAA Performance Plans, the Administrator's annual Performance Agreement with the Secretary of Transportation, and other FAA plans, programs, and budgets.

In order to ensure the success of this Strategic Plan, two additional elements are needed--accountability and coordination. Internal FAA coordination has been key to developing this plan, and it will continue. FAA lead and support organizations have been discussed and agreed to for each goal and project. Each lead has called together managers of key supporting organizations to discuss interrelationships, what is required by whom and when, and how it will be accomplished. Supporting organizations have agreed to their roles and committed to providing what has been asked. Where supporting organizations need assistance, that has been identified as well. The result is a series of FAA plans with schedules and milestones to implement each project. These project plans are already being tracked corporately by the Administrator. Periodic meetings of the Administrator and her senior management team discuss both aerospace community performance toward achieving the measures of success identified in this plan and FAA progress implementing its near-term projects. Further, project accomplishments are being included in the performance standards of FAA senior managers. These accomplishments will flow into the performance standards of the appropriate managers and employees in the lines of business. The FAA Administrator, in turn, is holding herself accountable to the Secretary of Transportation through an annual Performance Agreement and monthly meetings with the Deputy Secretary to review progress in meeting FAA's commitments under DOT's Strategic Plan. FAA will finally hold itself accountable to the aerospace community through Challenger Sessions such as the two that helped develop this plan.

The result is that FAA will know how well it is carrying out its near-term projects, and whether they result in a safer, more secure, more efficient aviation system that supports the transportation needs of America. That knowledge will be supported by evaluation that will tell FAA whether it is doing the right things and whether it is doing them well. Based on that evaluation, and working with the Department and the transportation community, FAA will constantly recalibrate and revise its course toward success.



APPENDICES:

A. Environmental Scan: Key Factors Affecting FAA and Aerospace

The aerospace environment contains driving forces for change, and opportunities for positive change, but contains restraining forces that make change difficult.

Forces for Change

Forces for change include increased public focus on aviation safety and security; increasing demand for FAA and aviation services; requirements for more system flexibility for a wide variety of aircraft and routings; new technologies; increasing stress on an aging air traffic management system; increasing globalization of both aerospace and American business and travel in general; and reduced resources.

In the wake of the ValuJet and TWA 800 crashes, there has been an increased focus by the public, Congress, and the Administration on aviation safety and security. FAA faces a host of recommendations from the White House Commission on Aviation Safety and Security, the National Civil Aviation Review Commission, the General Accounting Office, the National Transportation Safety Board, the Department's own Inspector General, and internal efforts such as the FAA 90-day study and Challenge 2000. FAA responds to these recommendations in this strategic plan, and the safety goal adopted both here and in the NASA Strategic Plan reflects the primary safety recommendation of the White House Commission.

Demand for FAA aerospace services within the United States will expand slowly but steadily in the next 12 years. The cumulative effect will place a strain on FAA's ability to provide services. The most recent FAA forecast is for the number of airline passengers to increase over 61 percent from 574 million passengers in 1996 to 926 million in 2008. Revenue passenger-miles should increase 72 percent. Even with more passengers per airplane and longer trips, aircraft operations at airports with FAA traffic control service and aircraft handled at FAA air route traffic control centers should increase 15 to 25 percent. This increased demand will be placed on a system with fixed capacity and where key airports and terminal areas are already often congested. The number of congested airports is expected to increase from 26 to 31 in 2006.

U.S. commercial space ventures will begin to place more regular, perhaps daily, demands on the air traffic control system. Commercial space is in its infancy and will grow enormously over the next decade. FAA faces the challenge of working with this young industry to ensure a safe, secure, efficient system that serves its users around the world.

Aviation users want more flexibility in a "free flight" system. Commercial airlines want more direct routings and, within the bounds of safety, the ability to alter routings based on market considerations.

Users also want good access to the system. General aviation wants a system flexible enough to provide reasonable access to facilities and destinations. Helicopters can fly and land almost anywhere, but operators need a system flexible enough to take full advantage of these unique characteristics. Finally, the future system will need to



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accommodate space vehicles. In the future, spacecraft may land at airports, and owners of commercial space launch facilities have expressed interest in serving aircraft.

New technology drives change by presenting both opportunities and challenges. GPS is an example. By accurately pinpointing positions in the air or on the ground, it has opened up vast opportunities to increase aerospace capacity and improve safety. More fundamentally, however, it has caused FAA to change the systems it proposes to use over the next decade and phase out ground-based navigational aids.

FAA is also driven by the needs of an aging air traffic management infrastructure. FAA constantly faces choices between maintaining existing systems or replacing with something better. When FAA moves to new systems, both it and the aerospace community must plan for a transition that, in most cases, requires that old and new systems be operated simultaneously while the new system is tested and brought to full operational capability. The NAS Architecture is an evolving, service-based framework for identifying and coordinating FAA's choices and ensuring that they work in the overall system. FAA's Capital Investment Plan (CIP) catalogs FAA's choices and the facility and equipment projects FAA will undertake.

The globalization of aerospace, U.S. business, and travel is another factor driving change. International revenue passenger enplanements will almost double between 1996 and 2008 for U.S. air carriers, far outpacing domestic growth. U.S. citizens also increasingly travel on foreign air carriers. Major airlines, business and general aviation, manufacturers, and commercial space ventures think worldwide. Commercial space transportation is intrinsically a global market, with intense international competition for business. Much of U.S. business, from auto manufacturing to computers, has gone global. So must FAA. Today's air traffic system has international interfaces, but satellite-based CNS/ATM requires global development and implementation. Regulatory activities need international harmonization and oversight. Increased overseas emphasis of U.S. operators and aircraft manufacturers will continue to place pressure on FAA resources. Such changes mean greater reliance on work performed and overseen by other countries under agreement with the FAA. Building with its international partners a harmonized, safe, secure, efficient worldwide aerospace system is increasingly vital to serving U.S. passengers, business, and aerospace.

Finally, the prospect of reduced resources has driven FAA to streamline and to distinguish between what it needs to fulfill its mission and what services may have to be reduced or eliminated. It has also driven FAA and Congress toward financial reform. Commissions such as the White House Commission and the National Civil Aviation Review Commission have all said that new financing approaches are needed. FAA is working with the aerospace community and Congress to make financial reform a reality.

Opportunities for Positive Change

There are three elements needed to achieve a goal; people, technology, and procedures. The aerospace community faces opportunities with respect to each of these elements.

FAA and aerospace people are devoted to safety, motivated, and skilled. FAA must see that its people continue to be fully trained, both for what they do now and what they will do in the future. FAA must then use their full potential, involve them in the



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decisions that affect them, and remove artificial barriers to doing their jobs well. Well trained, competent, empowered FAA employees can then work with their aerospace counterparts to achieve safety, security, and system efficiency.

Technology brings other opportunities for positive change. New systems appear every day that are faster, smaller, and more powerful than those of even a year ago. FAA's challenge is to keep flexible enough to take advantage, not only of technology FAA and U.S. aviation are developing, but good technology from sources, such as universities and business. The aerospace challenge is to contribute to and help shape the application of new technology and then to prepare to use it.

FAA has gained key new opportunities to change procedures. Acquisition and personnel reform legislation has given FAA the freedom to perform basic functions better. FAA's challenge is to use that authority to make real changes, especially in response time and quality. FAA has begun to accept that challenge. FAA is implementing a new Acquisition Management System (AMS). The AMS strives for a 50-percent reduction in acquisition cycle time and a 20-percent reduction in acquisition costs. These goals will be achieved by capitalizing on both acquisition and personnel reform, as innovative human resource programs are used to align the work force with organizational goals.

Restraining Forces

There are potential restraints to progress. New technologies require research. People and organizations resist change. Resources must be managed without hampering creativity.

FAA influences but does not perform most aerospace activities. While FAA has important tools to lead and influence aerospace, including regulation, guidance, grants, technical assistance, and operation of the world's foremost air traffic management system, FAA does not fly or repair aircraft, launch space vehicles, or own and operate airports, heliports, and spaceports. Only through close partnership among FAA, aerospace, and other transportation modes that serve aerospace shipments or trips can the goals of a safe, secure, efficient transportation system be achieved. FAA must be a global partner to share research and intelligence and gain assistance developing a global aerospace system. Multilateral influence and leadership involves ensuring that difficult issues such as national sovereignty and international trade do not deflect aviation authorities' focus on safety, security, and system efficiency. Finally, FAA must be a close partner with its employees and unions, without whom little could be accomplished.

The FAA, like many public agencies, is caught in the vise of higher demand and expectations. Maintaining public confidence in this situation is a challenge. Communicating aviation's record, the promise of commercial space transportation, and FAA accomplishments will help. Communicating honestly and openly when crises occur, not only about the crisis but what FAA and aerospace are doing about it, is also important. Ultimately, however, the public's expectations about a safe, secure, and efficient global air transportation system must be met by the daily provision of this system and the correction of potential deficiencies before problems occur.

FAA must continue to improve its efficiency and accountability, though FAA culture often resists change. FAA acquisition and regulatory processes must continue to change in conjunction with the dynamics of the aviation industry. FAA has been given important tools for acquisition and personnel reform. It has taken important steps



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such as integrated product teams and improved cost accounting. FAA needs to expand its efforts to change its institutional structure and its relationships with customers and partners.

For FAA, as for all organizations, resources provide both opportunities and constraints. There is a wide gap between likely resources under existing financing and requirements for FAA services. Recent independent assessments by the White House Commission on Aviation Safety and Security and the National Civil Aviation Review Commission have confirmed the resource gap. GPRA supports matching resources and needs. One purpose of linking strategic and performance plans firmly to budgets is to make tradeoffs clear.

FAA also leverages its resources through partnerships with the private sector, other nations, and other Federal agencies. FAA's research budget is too small to meet aviation system needs. NASA spends more on aviation research than FAA does, so FAA works closely with NASA on its research. Human factors is another key cross-cutting area. The National Plan for Civil Aviation Human Factors is a collaborative plan by FAA, the Department of Defense, NASA, the aviation community, and others. On environmental issues, FAA works closely with EPA, Interior, states, and localities, as well as with the aerospace community. Implementing recommendations of the White House Commission is a coordinated effort among at least a dozen agencies including the FBI, the Department of State, the National Transportation Safety Board, and the Postal Service. FAA works closely with the National Weather Service on aviation weather. Even air traffic control involves coordination and sharing of resources with the Department of Defense, which operates its own ATC system, and with civil aviation authorities around the world.

This plan and FAA's GPRA-based strategic management process are meant to make clear what services FAA should provide, both alone and in coordination with others; the goals aerospace will achieve; and what it will cost. This strategic plan provides the long-term framework to match aerospace resources with initiatives. It is the basis of future FAA resource requests and provides long-term measures of success.



B. FAA Support for DOT Strategic Planning

Developed immediately after issuance of the new DOT Strategic Plan, this Strategic Plan is tightly aligned with the Department's mission, vision, goals, and performance measures. FAA started its planning process with the objective of aligning FAA's new plan with DOT's. FAA relied heavily on the DOT environmental scan and linked FAA and DOT goals in its strategic planning effort. FAA adopted DOT's distinction between mission-based goals and corporate management or enabling strategies. FAA's safety and security goals support DOT's safety and national security goals. FAA's system efficiency goal supports DOT's mobility and economic growth and trade goals, leaving the DOT as the primary lead on economic development. FAA's Environmental Responsibility enabling goal supports the DOT's Human and Natural Environment goal. FAA has further reinforced the alignment between the two plans in the projects selected for the Performance Agreement between FAA's Administrator and the Secretary of Transportation.

This FAA Strategic Plan directly supports the new DOT Strategic Plan and the Department's planning process in a number of ways.

First, FAA's three mission-based goals directly support four Department goals, as follows:

DOT	FAA
SAFETY: Promote the public health and safety by working toward the elimination of transportation-related deaths, injuries, and property damage.	SAFETY: By 2007, reduce the U.S. aviation fatal accident rates by 80 percent from 1996 levels.
MOBILITY: Shape America's future by ensuring a transportation system that is accessible, integrated, efficient, and offers flexibility of choices.	SYSTEM EFFICIENCY: Provide an aerospace transportation system that meets the needs of users and is efficient in the application of FAA and aerospace resources.
ECONOMIC GROWTH AND TRADE: Advance America's economic growth competitiveness domestically and internationally through efficient and flexible transportation.	
NATIONAL SECURITY: Advance the Nation's vital security interests in support of national strategies, such as the National Security Strategy and the National Drug Control Strategy, by ensuring that the transportation system is secure and available for defense mobility and that our borders are safe from illegal intrusion.	SECURITY: Prevent security incidents in the aviation system.

FAA supports the Department's **HUMAN AND NATURAL ENVIRONMENT** goal using an Environmental Responsibility enabling goal with three focus areas. Finally, the Federal Aviation Reauthorization Act of 1996 sought to eliminate a dual mandate of regulating safety and promoting aviation by focusing FAA on its safety mission. As a result, the new FAA Strategic Plan recognizes the Department's lead on Economic



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Growth and Trade and supports the Department's goal through projects aimed at ensuring the safety, security, and efficiency of U.S. aerospace as part of the Nation's overall transportation system. FAA also supports Economic Growth and Trade through partnerships with the public, such as the Garrett A. Morgan Technology and Transportation Futures Program, and through reaffirming FAA's commitment to expand contract opportunities by encouraging and assisting socially and economically disadvantaged business to participate in FAA and FAA-assisted contracts and grants. FAA has now implemented a Mentor/Protégé program which encourages our large vendors to mentor such businesses.

FAA's support for the Department's plan goes deeper than the goals. FAA supports the Department's Corporate Management Strategies with its own enabling goals and strategies. However, FAA's support for the Department's plan goes deeper still, to the project level. Every FY 1998 project in the FAA Strategic Plan is reflected in the Administrator's FY 1998 Performance Agreement with the Secretary. Every key short-term change FAA will make directly supports an element in the DOT Strategic Plan. FAA is committed to the concept of ONE DOT and to addressing aerospace goals in the context of improving the safe, secure, and efficient transportation of American people and goods throughout the United States, around the world, and, in time, through space.



C. Evaluations in Support of FAA Strategic Planning

Numerous evaluations have supported this Strategic Plan and further evaluations are scheduled that will affect future plans. While not all meet the Government Performance and Results Act (GPRA) definition of a program evaluation, all have or will affect this plan and its successors. Summaries of some key evaluations follow.

Evaluations that have Supported This Strategic Plan

A host of program and other evaluations, most done externally to FAA, have had a strong influence on this Strategic Plan. They include:

The White House Commission on Aviation Safety and Security.

The White House Commission, chartered in response to the TWA 800 crash, examined FAA and other Federal programs in support of aviation safety, security, air traffic management, and response to aviation disasters. A total of 57 recommendations were made for changes as fundamental as setting a national goal to reduce the fatal aviation accident rate by 80 percent in 10 years, making aviation security a national security matter, and accelerating modernization of the FAA's air traffic management system by almost a decade. The Department of Transportation, through FAA, coordinated with other Federal agencies to develop and begin implementing a detailed 10-year plan, with responsibilities, schedules, and funding requirements, to achieve all recommendations. Funding requirements were included in FAA's FY 1999 budget request and will be in future requests. FAA and other agencies have not waited, however. Most recommendations have already been achieved or will be in the next year. One striking example is that FAA has adopted the Commission's proposed safety goal in this plan.

Coopers & Lybrand Study of FAA Financing.

Congress, in the Federal Aviation Authorization Act of 1996, instructed the FAA Administrator to contract with an independent entity to conduct a complete, independent assessment of the financial requirements of FAA through 2002. FAA contracted with Coopers & Lybrand (C&L). C&L agreed with FAA estimates that it would need some \$59 billion from FY 1997 through FY 2002 under existing financing, but found the status quo unsustainable under a balanced budget framework. C&L also pointed out potential cost increases FAA could face, including costs of implementing the White House Commission recommendations.

National Civil Aviation Review Commission (NCARC): Aviation Funding.

Congress next established NCARC with aviation funding and safety task forces. The funding task force issued a preliminary report in September 1997. Key recommendations were:

- FAA budget treatment must change. Revenues raised from aviation users must be spent for aviation purposes.



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- FAA management must become performance-based and operated as a business, with a bottom line and standard business practices such as a cost-accounting system.
- FAA's revenue stream must become cost based, with a cost-based user charge for commercial passenger and cargo air carriers and a continued general aviation fuel tax.
- FAA must do better at managing and controlling ATC operating costs and increase its capital investment in air traffic control modernization.
- Airport capital financing requirements must be met. The projects worthy of funding vastly outnumber the amount of funds available. The Airport Improvement Program should be funded at a minimum of \$2 billion annually over the next 5 years.

The Administration has responded positively to the report. FAA and the Department are developing legislation to improve the agency's financing and organizational structure to fulfill FAA's mission better.

NCARC: Aviation Safety.

NCARC was given two tasks: To review FAA financing and to evaluate FAA safety programs. The second NCARC task force, on aviation safety, held a public hearing on October 8, 1997. It released its recommendations in a report titled, "Avoiding Aviation Gridlock and Reducing the Accident Rate," on December 12, 1997. The report states that, while the commercial aviation accident rate is extraordinarily low, it has shown little improvement over the last 30 years. A flat accident rate coupled with an expected healthy growth in aviation will mean an increasing number of accidents, an unacceptable result. The accident rate must be reduced significantly through a comprehensive and concerted program by government and industry. The Commission makes four specific recommendations to improve safety:

- FAA and the aviation industry must develop a strategic plan to improve safety, with specific priorities based on objective, quantitative analysis of safety information and data.
- Aviation safety programs in industry and government need to be improved by establishing more effective safety risk management programs.
- FAA safety programs need to become performance oriented.
- Government and industry should expand on their programs to improve aviation safety in other parts of the world.

These recommendations build on previous recommendations, including those of the White House Commission. FAA is already implementing them. This Strategic Plan highlights safety as a key mission goal, and sets as FAA's target an 80-percent reduction in the fatal accident rate in the next 10 years. It also sets FAA's priorities for the years ahead--regulatory reform, safety information and analysis, addressing the human factors causes of accidents, and improving surveillance and inspection. A major purpose for FAA's safety information focus area is to improve safety risk management. The Aircraft Certification Systems Evaluation (ACSEP) is a system specifically developed to conduct evaluations of safety risk, and FAA has a project to target it at areas of greatest potential safety impact. A major purpose of regulatory reform is to produce simple, understandable, performance-based regulations. Global leadership is specifically cited as a key corporate strategy to achieve FAA's safety goal,



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and projects such as the Trilateral Controlled Flight Into Terrain (CFIT) Committee are intended to improve aviation safety worldwide.

Challenge 2000.

In 1995 the FAA Administrator charged the Regulation and Certification organization (AVR) and its contractor, Booz-Allen & Hamilton, to find ways FAA can assist the industry move toward zero accidents while meeting the challenge of the year 2000. The purpose of Challenge 2000 is to prepare AVR to meet future workload demands, such as increasing aviation growth and changing technology complexity with limited additional resources, and remedy today's problems that hinder improvements in aviation systems safety. Four recommendations were made:

- Shift roles and responsibilities between AVR and certain segments of the industry. AVR will move to program-level definition, design, and insertion of industry safety programs. Many air carriers and manufacturers exceed "minimum standards" and are capable of greater self regulation. AVR should shift its resources to other organizations that require more oversight.
- Deploy functional resources through Centers of Excellence (CoE).
- Redesign the rulemaking process to make it more flexible and efficient. Evolve to performance-based regulations wherever appropriate.
- As necessary, resize and restructure AVR for the new mission and operating model.

Internal Evaluation of FAA Acquisition Reform.

An internal FAA evaluation of the first year of Acquisition Reform was conducted by the ARA Evaluation Staff. The report found measurable progress in implementing the Acquisition Management System, reduced procurement times, cost savings to industry, and an increase in obligations to small business, but also found a decrease in obligations to socially and economically disadvantaged businesses, problems with the new dispute resolution process, a lack of consistent measurement capability, and minimal progress in establishing a full life-cycle cost perspective.

Booz-Allen & Hamilton Independent Assessment of Acquisition Reform.

Booz-Allen & Hamilton, in a study mandated by Congress, found that FAA has made significant progress since adopting the Acquisition Management System (AMS) on April 1, 1996. Specific achievements include overall improvement in the acquisition management process, reducing time to contract awards by more than 50 percent, an increase in competitive awards, more awards based on best value, and greater emphasis on the use of COTS/NDI solutions. Booz-Allen & Hamilton also recommended continued management attention and focus by ensuring that the AMS and other reform initiatives are compatible, by clarifying organizational roles and responsibilities and encouraging staff development and training.

GAO Studies of FAA Programs.

GAO has undertaken a number of evaluations of FAA programs over the past several years. Some key studies include:

Aviation Acquisition: A Comprehensive Strategy is Needed for Cultural Change at FAA. RCED-96-159. August 1996. Recommended that the Secretary direct the FAA Administrator to develop a comprehensive strategy for cultural change. The



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FAA Administrator directed key associates to develop the strategy and review it at 6-month intervals. Key elements of that strategy are reflected in this plan.

- Air Traffic Control: Improved Cost Information Needed to Make Billion Dollar Modernization Investment Decisions. AIMD-97-20. January 1997. FAA concurred with and proceeded to implement 4 of 5 recommendations aimed at improving FAA cost estimation and accounting. In this plan, the project on Implementation of Cost Accounting Systems directly responds to these GAO recommendations.
- Air Traffic Control: Complete and Enforced Architecture Needed for FAA Systems Modernization. AIMD-97-30. February 1997. FAA agrees with the need for a complete and enforced architecture, with both logical and technical components. Version 3.0 of the NAS Architecture will represent the baseline from which technical architectures will be developed. FAA disagrees that the Chief Information Officer (CIO) is the appropriate manager of the architecture, but has involved FAA's CIO in architecture development.
- Air Traffic Control: Immature Software Acquisition Processes Increase FAA System Acquisition Risks. AIMD-97-47. March 1997. FAA has worked to improve its software acquisition process, and has placed responsibility with the CIO. However, as with the previous study, FAA disagrees that the Chief Information Officer (CIO) is the appropriate manager of the entire NAS architecture.
- Aviation Security: Implementation of Recommendations Is Under Way, but Completion Will Take Several Years. RCED-98-102, April 1998. This study focused on 8 of the 31 White House Commission security recommendations and found that, while progress had been made on them and 1 has been completed, there have also been delays. FAA finds this a balanced study that recognizes the delays, but also describes the reasons for the delays and recognizes that several of the security recommendations not studied have been completed. FAA is seriously considering the GAO recommendations.

Recent Office of the Inspector General (OIG) Reports

The DOT OIG has conducted some 169 audits and studies of FAA programs since 1992. These reports reach all parts of FAA, from air traffic control, system modernization, and research to diversion of airport revenue, sexual harassment, and the Year 2000 computer challenge. A sample of those studies includes:

- Federal Aviation Administration's Research, Engineering, and Development Program. AV-98-092. 25 March 1998.
- Air Traffic Control Modernization. AV-98-089. 27 March 1998.
- Fiscal Year 1997 Financial Statements. FE-98-098. 25 March 1998.
- Runway Incursion Program. AV-98-075. 9 February 1998.
- The Year 2000 Computer Challenges, FAA. FE-98-068. 23 February 1998.
- Management Advisory Report on Civil Rights Matters (Sexual Harassment) Involving FAA. MA-00-8-022. 21 October 1997.
- Status of FAA's 90-Day Safety Review Recommendations. AV-98-090. 3 March 1998.
- Management Advisory Memorandum on National Airspace System Infrastructure Management System Prototype, FAA. AS-FA-7-005. 7 March 1997.



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- Alleged Unsatisfactory Coordination and Improper Fund Control of Occupational Safety and Health Programs. E5-FA-7-006. 27 January 1997.
- Management Advisory Memorandum on Resource Requirement Planning for Operating and Maintaining the National Airspace System. AS-FA-7-004. 13 January 1997.
- FAA Alleged Waste and Mismanagement of Air Route Traffic Control Centers Critical and Essential Power Systems. E5-FA-7-003. 16 October 1996.

Other recent OIG reports include the audit of the certification and surveillance of domestic and foreign repair stations and “Lessons Learned on the FAA’s Process for Assessing the Boeing 777 for Early Extended Range Operations with Two-Engine Airplanes (ETOPS).” While FAA did not agree with all recommendations, it did concur with many. Resulting changes inform FAA regulatory reform efforts, including the project in this plan concerning Aircraft Certification Systems Evaluation Program targeting.

Finally, the OIG made recommendations in response to a draft of this plan. Many have been incorporated directly into the text of this document, including recommendations that FAA more closely parallel this plan to the DOT Strategic Plan, place more emphasis on intermodal issues and cross-cutting functions with other agencies, and add discussion of OIG studies affecting FAA. Some recommendations have been partly incorporated here, responded to elsewhere (e.g., in the annual FAA Performance Plan), and/or deferred for further consideration. The OIG, for example, recommended more and better quantitative performance targets. These are included in the annual FAA Performance Plan and will be improved in both future Strategic and Performance Plans. The OIG recommended more performance goals and projects for FAA’s enabling goals. There are some performance goals in the FAA Performance Plan, and both performance goals and projects in the Administrator’s Annual Performance Agreement with the Secretary. In this document, FAA deliberately downplayed detail for enabling goals and strategies, except for its people goal, in order to emphasize its mission-based goals. Finally, OIG recommended that FAA develop enabling goals and strategies in several new focus areas, including improving labor relations, employee accountability, and cost accountability. FAA managers are scheduled for an offsite session to address how this Strategic Plan should evolve, and will select new projects and consider issues of accountability. They will consider the remaining OIG recommendations at that time.

Scheduled Evaluations

A number of evaluations are scheduled which will affect FAA planning in the future. They include:

Acquisition and Personnel Reform.

Congress, in the Federal Aviation Reauthorization Act of 1996, mandated that outside experts should conduct an evaluation of FAA’s new acquisition system and FAA’s new personnel system by July 1, 1999, and provide the results to the authorizing committees. This evaluation will provide important information to FAA as well as to Congress on what FAA has accomplished and what still needs to be done.



Security Screening for Baggage and Passengers.

Scheduled for completion in the year 2000 is an evaluation of the impact of security screening program elements and initiatives on the detection of improvised explosive devices and weapons. This evaluation will help FAA and the aviation community improve the effectiveness of its baggage and passenger screening.

Acquisition Reform Evaluation.

The FAA will also complete the second and third year internal evaluation of the implementation of Acquisition Reform. These are intended to provide continuing feedback to the Administrator on the progress and issues associated with the new process.

Aeronautical Information Services Data Distribution.

During the redesign of the Aeronautical Information Service (AIS) data base, it became apparent that FAA must investigate new ways to get AIS information to customers. Customer interaction is necessary to learn their computing capabilities and to determine which method of data distribution each prefers. This interaction will be done via two surveys which, when completed, will be analyzed. The results, to be available in 1998, will allow the agency to determine the optimum method of dissemination of AIS information.

Integrated Security Management System.

Scheduled for 2001, this will be an evaluation of the Integrated Security Management System (ISMS) to determine the effectiveness of managing computer security and plans for addressing future security issues.

Communications Facilities Expansion.

Scheduled for 2001, this evaluation of the Communications Facilities Expansion will determine the impact of expansion on equipment installation services.

Critical Communication Support.

Scheduled for 2002, this will be an evaluation of the impact of communication services as it relates to equipment installation.

NAS Infrastructure Management Systems.

This evaluation of the NAS Infrastructure Management System (NIMS), scheduled for 2002, will determine its impact on operational availability of equipment at current levels while minimizing the impact on quality and efficiency.

Acquisition of Equipment and Materials.

The objective of this study, scheduled for 1999, will be to determine whether FAA has achieved more timely and cost-effective acquisition of equipment and materials.

Planned GAO Studies.

GAO has provided a list of anticipated aviation-related reports for 1998. These reports, many of which address focus areas and projects in this plan, include:



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- Financing Airport Development, evaluating methods by which airport capital improvements are financed and the extent of future capital development needs.
- Enforcement, evaluating FAA's enforcement process and how it could be improved.
- Airfield Maintenance, evaluating airfield maintenance procedures and FAA's role.
- Aviation Weather, evaluating actions taken by FAA to reduce weather-related accidents and delays.
- Wide Area Augmentation System (WAAS), evaluating FAA's reporting of WAAS cost, schedule, and performance risks.
- Airport Rates and Charges, evaluating DOT's implementation of the statutory requirement that airport rates and charges must be reasonable.
- ATC Automation, evaluating the status of FAA's ATC automation efforts.
- Free Flight, evaluating the status of and challenges facing FAA's implementation of Free Flight.
- Aviation Security Initiatives, evaluating FAA's actions to implement recommendations made to improve security.
- FAA's Efforts to Achieve Year 2000 Compliance, evaluating FAA's preparation for, and management of, its year 2000 conversion problem.
- FAA's Air Traffic Control Computer Security, evaluating FAA's effectiveness at managing computer security of existing systems and plans for addressing future security issues.
- FAA's Standard Terminal Automation Replacement System (STARS), evaluating STARS software composition, status, and quality.
- FAA's User Request Evaluation Tool (URET) Demonstration Activities, evaluating the adequacy of FAA's effort to evaluate its URET prototype.

Planned OIG Studies.

The DOT Office of Inspector General has provided a list of proposed aviation audit projects for 1998. These reports, together with key issues they will address, are as follows.

- Support Services Contracts. Has FAA provided adequate administrative oversight of technical services support contracts? (Start 6/98.)
- Air Traffic Controller Training. With the renewed emphasis on hiring over 1,300 air traffic controllers during the last 2 years, what actions has FAA taken to improve the effectiveness of contract training and computer based training initiatives? (Start 9/98.)
- National Aviation Safety Inspection Program (NASIP). Are the NASIP's effective in assessing air carriers' compliance with safety regulations? (Start 4/98.)
- Airport Access Control. What progress have the FAA, airport operators, and air carriers made in correcting access control security weaknesses previously identified? Also, are airport operators and air carriers complying with current Security Directives and Emergency Amendments? (Start 7/98.)
- New Runway Development. Is FAA ensuring that Airport Improvement Program grant funds are used in compliance with FAA requirements in the development of new runways? (Start 9/98.)



D. FAA Support of Requirements of the Government Performance and Results Act of 1993 (GPRA)

The FAA Strategic Plan strongly supports GPRA implementation. FAA meets the requirements of GPRA in support of the Department and because GPRA is a good, commonsense approach to strategic planning and management.

GPRA requires the following from a strategic plan: a comprehensive mission statement; general goals and objectives; a description of how they will be achieved; a description of how performance goals included in the agency Performance Plan relate to the Strategic Plan's goals and objectives; a description of program evaluations that influenced the plan and a schedule for future evaluations; coverage of at least 5 years; consistency with that the agency's Performance Plan; consultation with Congress and those affected by the plan; and drafting by Federal employees.

Based on these requirements and GPRA's legislative history, Congress has developed a set of grading criteria consisting of 10 evaluation factors, each weighted equally and rated on a 10-point scale. The following briefly addresses how this plan addresses each factor.

Mission Statement: The FAA's mission statement covers FAA's major functions and presents the ultimate outcome--a safe, secure, efficient aerospace system--that FAA seeks to achieve, working in close cooperation with aerospace worldwide. The mission is firmly grounded in legislation, including Title 49, United States Code; the Commercial Space Launch Act of 1984; and the Federal Aviation Reauthorization Act of 1996 that strengthened FAA's focus on its safety mission.

General (strategic) goals and objectives: FAA goes beyond the requirements of GPRA by specifying, for each outcome-oriented, mission-based general goal, how FAA will measure success and what targets FAA has set. FAA considers the goals challenging but achievable and comprehensive in their coverage of major aspects of FAA's mission.

Strategies to achieve goals: FAA's mission-based goals are supported, not just by broad strategies, but by strategic focus areas (major areas where efforts will be focused over the next 5 years) and specific, measurable projects for FY 1998. Actions FAA will take to achieve its goals are clearly stated, especially in the near term.

Relationships between general goals and annual performance goals: FAA's Strategic Plan includes long-range performance goals for each general goal. These performance goals were developed based on performance goals FAA has developed in an annual performance plan that supports the Department's FY 1999 performance plan. FAA's intention is that future-year performance plan goals should tie directly to the longer range, more general performance goals in the Strategic Plan.

Key external factors: The appendix A discussion of key factors affecting FAA specifically includes a discussion of potential restraining forces, along with how FAA will address each of the major ones.

Program evaluations: Appendix C directly addresses the evaluations that influenced this plan and a schedule of evaluations that will affect FAA strategic planning in the future. Many of these evaluations are also discussed throughout the text of the plan.



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Key evaluations that have influenced this plan the most include the White House Commission study, Challenge 2000, and the NCARC efforts.

Treatment of cross-cutting functions: This is a plan for aerospace that focuses on FAA and its leadership. Partnership is a major theme and strategy in this Strategic Plan. FAA depends heavily on other Federal agencies to help achieve the aerospace goals set out here. NASA, for example, has three times the funds for research on aviation that FAA has; FAA could not even begin to meet its research needs without cooperation with NASA, the Department of Defense, and others. The reader is referred to the introduction; the discussion of aerospace involvement under each mission goal; and the appendix A discussion of restraining forces, where a paragraph is devoted to highlighting some of the key areas where FAA works and shares responsibilities with other Federal agencies.

Treatment of major management problems: This plan recognizes a number of challenges facing FAA management, including improving FAA's culture and making its acquisition and regulatory processes more timely and responsive. It also describes both ongoing and new initiatives to address these problems, including the major acquisition and personnel reform efforts Congress has authorized.

Data capacity: This plan addresses FAA's greatest data weakness, the need for a cost-based accounting system. FAA, like the rest of Government, has budgeted and accounted by line items and appropriation codes rather than by programs and fully allocated costs. FAA's budgets are still submitted on a line item basis. FAA, however, is completing work on a cost-based accounting system that is an essential component for FAA to achieve the NCARC recommendation that it become a performance-based organization.

Congressional and stakeholder consultations: This draft plan is being circulated extensively for comment, and is being made available on the Internet. It is based on previous consultation, especially at two Challenger Sessions with the aviation community. Key members of Congress and key committee staffs, along with all segments of the aerospace community including NASA, NTSB, and the Department of Defense, were invited to those sessions.